Claims

1. A method for the treatment or prophylaxis of a B-cell disorder in a subject, the method comprising administering to the subject an effective amount of an anti-LMA antibody to inhibit the growth of, or kill, lymphoid cells in the subject.

2. A method according to claim 1 wherein the B-cell disorder is a lymphoproliferative disorder selected from the group consisting of multiple myeloma, B cell lymphoma and macroglobulinemia.

3. A method according to claim 1 or claim 2 wherein the B-cell disorder is multiple myeloma.

4. A method according to any one of claims 1 to 3 wherein the anti-LMA antibody is conjugated to a cytotoxic moiety or biological modifier.

5. A method according to claim 4 wherein the cytotoxic moiety is a toxin, a chemotherapeutic agent, or a radioactive agent.

6. A method according to claim 4 wherein the cytotoxic moiety is a nucleic acid molecule encoding a cytotoxic polypeptide.

7. A method according to claim 4 wherein the biological response modifier is a lymphokine, a cytokine or an interferon.

8 A method for inhibiting the growth of or killing lymphoid cells in a subject, the method comprising administering to the subject an LMA ligand which is conjugated to a cytotoxic moiety or biological modifier, under conditions sufficient for the binding of the LMA ligand conjugate to the lymphoid cells to inhibit the growth of, or to kill, the cells.

9. A method according to claim 8 wherein the LMA ligand is anti-LMA antibody.

10. A method according to claim 8 or claim 9 wherein the cytotoxic moiety is a toxin, a chemotherapeutic agent, or a radioactive agent.

11. A method according to claim 8 or claim 9 wherein the cytotoxic moiety is a nucleic acid molecule encoding a cytotoxic polypeptide.

12. A method according to any one of claims 8 to 11 wherein the biological response modifier is a lymphokine, a cytokine or an interferon.

13. A method according to any one of claims 1 to 12 which further comprises the step of treating the subject to reduce the level of free lambda light chains present in the fluid of the subject prior to administration of the anti-LMA antibody or LMA ligand conjugate.

14. A method according to claim 13 wherein the level of free light chains present in the serum of the subject is reduced by chemotherapy or plasmapheresis.

15. A method for autologous hematopoietic cell transplantation in a subject, the method comprising

(i) removing a hematopoietic progenitor cell population from the subject,

(ii) treating the cell population with an anti-LMA antibody or LMA ligand conjugate, and

(iii) transplanting the treated cell population from step (ii) into the subject.

16. A method according to claim 15 which further comprises intravenous infusion of anti-LMA antibody or LMA ligand conjugate into the subject.

17. A method according to claim 15 or claim 16, wherein the anti-LMA antibody or LMA ligand conjugate is bound to a solid support.

18. A method for localizing lymphoid cells in a subject, the method comprising administering to the subject an anti-LMA antibody or LMA ligand, allowing the antibody or ligand to bind to cells within the subject, and determining the location of the antibody or ligand within the subject.

19. A method according to claim 18 wherein the antibody or ligand is detectably labeled.

20. A method according to any one of claims 1 to 19 wherein the anti-LMA antibody is a chimeric antibody or a humanised antibody.

21. An anti-LMA antibody conjugated to a cytotoxic moiety or a biological modifier.

22. An anti-LMA antibody according to claim 20 wherein the cytotoxic moiety is a toxin, a chemotherapeutic agent, or a radioactive agent.

23. An anti-LMA antibody according to claim 20 wherein the cytotoxic moiety is a nucleic acid molecule encoding a cytotoxic polypeptide.

24. An anti-LMA antibody according to claim 20 wherein the biological response modifier is a lymphokine, a cytokine or an interferon.

25. An anti-LMA antibody labeled with a detectable moiety.

26. A pharmaceutical composition comprising an anti-LMA antibody or an LMA antigen conjugate and a pharmaceutically-acceptable carrier, diluent, or excipient.

27. An anti-LMA antibody or LMA ligand conjugate bound to a solid support.